PCB Abatement Plan

Former Omaha Steel Castings, Co.

4601 Farnam Street

Omaha, Douglas County, Nebraska

March 16, 2016

Terracon Project No. 05147015

Prepared for:

The Board of Regents of the University of Nebraska (NU)
A public body corporate for and on behalf of the
University of Nebraska Medical Center
985060 Nebraska Medical Center
Omaha, Nebraska 68198-5060

Prepared by:

Terracon Consultants, Inc.
Omaha, Nebraska

Terracon

March 16, 2016

The Board of Regents of the University of Nebraska (NU)
A public body corporate for and on behalf of the Univeristy of Nebraska Medical Center
985060 Nebraska Medical Center
Omaha, Nebraska 68198-5060

RECEIVED
MAR 2 3 2016
AWMD/RCAP

Attn: Mr. Keith Swarts
P: 402-559-5840
E: kswarts@unmc.edu

Re: PCB Abatement Plan
Former Omaha Steel Castings, Co.
4601 Farnam Street
Omaha, Douglas County, Nebraska
Terracon Project No. 05147015

Dear Mr. Swarts:

Enclosed is a Polychlorinated Biphenyl (PCB) Abatement Plan prepared by Terracon Consultants, Inc. (Terracon) for the above referenced site. Previously prepared environmental reports indicate that two concrete pads at the site formerly used to support electrical transformers have concentrations of total PCBs that exceed regulatory screening levels. This plan's primary focus is to appropriately address PCB impacted concrete, and to facilitate its removal and disposal. Other issues related to upcoming site preparation work are also addressed in a separate Materials Management Plan.

We appreciate the opportunity to be of service to you on this project. If there are any questions concerning this plan or if we may be of further assistance, please contact us at (402) 330-2202.

Sincerely,

Terracon Consultants, Inc.

Robert G. Goodwin, PhD., P.G.
Project Geologist

for Michael E. Hagemeister, P.E.
Senior Principal

Megan R. Hughes
Project Manager

RGG/MEH/MRH:rgg/kmt

Distribution: Addressee (1 PDF)
Mr. Thomas C. Huston, Cline, Williams, Wright, Johnson & Oldfather LLP (1 PDF)
Mr. Kurt Limesand (1 Hard copy)

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PCB ABATEMENT PLAN
FORMER OMAHA STEEL CASTINGS, CO.
4601 FARNAM STREET
OMAHA, DOUGLAS COUNTY, NEBRASKA

Terracon Project No. 05147015
March 16, 2016

1.0 INTRODUCTION

The former Omaha Steel Castings, Co. site (Figure 1, Appendix A) operated as a foundry, and it is slated for redevelopment. Buildings have been demolished and removed from the property, but slabs and foundations remain.

- A Phase I Environmental Site Assessment (ESA) (Terracon Project No. 05137851, April 2, 2014) identified several recognized environmental conditions (RECs) at the site, including:
  - Six concrete pads formerly used to support electrical transformers (Figure 2, Appendix A).
  - Staining was observed on the concrete pads and on soil adjacent to several of the pads.
- A limited sampling investigation (LSI) (Terracon Project No. 05147015, April 7, 2015) was conducted on October 10, 2014, and included wipe sampling of concrete at the six concrete pads and surface soil sampling at three of the pads. Samples were collected from visibly stained areas and were analyzed for polychlorinated biphenyls (PCBs) (Table 1, Appendix B).
- Based on the results of the wipe sampling, concrete core sampling was conducted on March 20, 2015. Three samples each were collected from randomly selected locations at three pads (nine samples total). Concrete was cored to a depth of approximately 7 centimeters (cm) at each location. Samples were analyzed for PCBs (Table 1, Appendix B).

PCB-contaminated concrete from two pads (designated "A" and "F", Figure 2) will be removed during PCB abatement at the site. Terracon will provide the following services in support of the PCB abatement project:

- Coordination of activities with a PCB abatement contractor to conduct removal and disposal of the PCB-contaminated concrete at pads "A" and "F."

- On-site observation/assistance for removal of concrete impacted by PCBs. Field services will consist of observation of the removed materials and Coordinating with the abatement contractor on which materials are to be disposed off-site.

- Confirmation sampling of sampling of soil beneath the removed pads.

- Preparation of a PCB Abatement Report that documents the removal and disposal of the PCB-contaminated concrete from pads "A" and "F."

NU Contact Information:

Project Coordinator: Keith Swarts, Director, Business Services
Telephone: 402-559-5840

Abatement Contractor Information:

Abatement Contractor: John Sempek, Environmental Solutions, Inc.
Telephone: 402-896-3600

Terracon Contact Information:

Project Manager: Megan Hughes
Telephone: 402-384-7025

2.0 PROJECT SCOPE

In accordance with Code of Federal Regulations Title 40 Section 761 (40 CFR § 761), PCB remediation waste defined in 40 CFR § 761.61 (a) includes porous building materials, such as concrete, that contain PCBs as a result of spill, release, or other unauthorized disposal. Disposal options for such waste include self-implemented on-site cleanup and disposal. The cleanup criteria for porous PCB remediation waste for high-occupancy sites is less than or equal to 1 part per million (ppm). Results of concrete coring (Table 1, Appendix B) indicate that samples collected at pads "A" and "F" exceeded the cleanup criteria, but they have concentrations less than 50 ppm. In accordance with 40 CFR § 761.61(a)(5)(iii) porous surfaces shall be disposed on-site or off-site as bulk PCB remediation waste. 40 CFR § 761(a)(5)((i)(B)(2)(ii) indicates that bulk PCB remediation waste with a PCB concentration less than 50 ppm shall be disposed in accordance with 40 CFR § 761(a)(5)(v)(A) which includes off-site disposal at a facility permitted, licensed, or registered by a State to manage municipal solid waste.

The following scope actions will be implemented to abate site PCB contamination:

- Secure necessary designation and/or manifest from the State or landfill.
- Remove each pad from the ground.
- Break each pad into blocks that can be loaded into dump trucks.
- Secure and tarp removed concrete prior to transport.
- Dispose of the removed concrete and personal protective equipment (PPE) at a landfill licensed to receive municipal waste in accordance with 40 CFR § 761(a)(5)(v)(A).
- Conduct confirmation sampling of soil beneath the removed pads.
- Report the results of removal and disposal.

3.0 PROJECT EXECUTION

Pad "A" is approximately 7 feet long by 4 feet 6 inches wide by 2 feet thick. Removal of the concrete pad will result in the removal of about 2.3 cubic yard (cy) of concrete. Pad "F" is approximately 13 feet 7 inches long by 6 feet 1 inch wide by 2 feet thick. Removal of the concrete pad will result in removal of about 6.1 cy of concrete. Access to the site is controlled by locked gates and chain-link fencing. The field work is anticipated to require about two days for concrete removal and disposal. Once on the site property, the concrete pads are readily accessible by vehicles and equipment. The PCB contaminated concrete removal will be conducted before other pad and foundation removal activities begin. Site restoration will not be conducted, because other site demolition activities, including removal of foundations and the remaining concrete pads will follow PCB abatement. The site will be graded to achieve planned surface contours following foundation removal. As such, a detailed execution plan is unnecessary at this time.

The following actions will be implemented:

- Terracon and ESI personnel will coordinate site access with the NU project coordinator.
- A rubber tire backhoe will be used to remove the two concrete pads from the ground.
- A concrete breaker attached to a rubber tire backhoe will be used to break the concrete into pieces able to be loaded into a dump truck.
- A rubber tire backhoe will be used to load the concrete pieces into a dump truck.

- Concrete chips will be swept up and placed into a dump truck with the concrete pieces.
- Waste will be transported with appropriate manifests to a licensed disposal facility.
- Terracon will conduct confirmation sampling of soil beneath pads "A" and "F" once the pads have been removed. Samples of surface soil will be collected from four randomly selected locations per pad. The four individual samples will be composited in a clean stainless steel bowl (one composite per pad), and two composite samples (one per pad) will be sent off site for laboratory analysis of PCBs by Method 8082-SIM.

4.0 DOCUMENTATION AND ABATEMENT COMPLETION ACCEPTANCE

Terracon will prepare an Abatement Completion Report this will document the field activities conducted during the PCB remediation waste abatement process. The report will document the methods used to remove PCB-contaminated concrete, waste volumes generated, transportation and disposal of waste.

The acceptance criteria for abatement completion will be confirmation of the proper removal and disposal of the PCB contaminated concrete and confirmation soil sample results less than 1 part per million (ppm).

If additional contamination is encountered during the abatement process, or if confirmation sampling results exceed 1 ppm, Mr. Kurt Limesand, U.S. Environmental Protection Agency Region VII (EPA Region VII) will be contacted (913-551-7184), and possible expansion of the cleanup area will be discussed.

In accordance with 40 CFR § 761.61(a)(3)(E), a written certification is included as Appendix C. The certification has been signed by the University of Nebraska Medical Center and Terracon.

5.0 NOTIFICATION

In accordance with 40 CFR § 761, this work plan will be submitted for review and approval by U.S Environmental Protection Agency Region VII (EPA Region VII) 30 days prior to abatement work. Work will commence following EPA Region VII concurrence.

6.0 HEALTH AND SAFETY

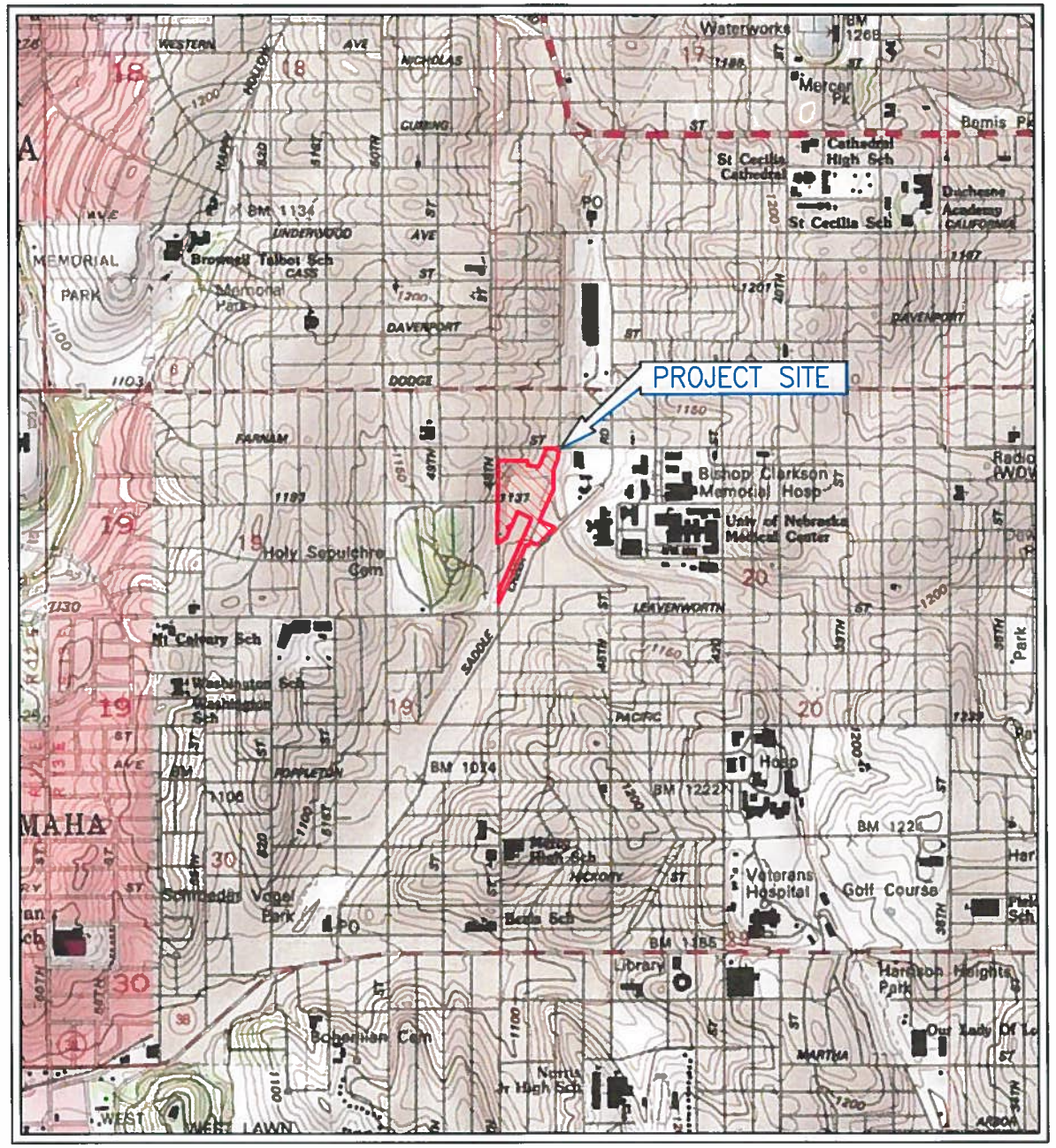
PCB Abatement work will be conducted in accordance with Safety and Health Plan, Polychlorinated Biphenyls (PCBs) Contamination Anticipated (Terracon Project No. 05147015, March 19, 2015).

7.0 GENERAL COMMENTS

This plan is based on data obtained from previous sampling, analysis and other information sources mentioned in this plan. The data does not account for any variation in subsurface stratigraphy, hydrogeology or contaminant distribution which may occur between or beyond existing site sampling location.

This plan has been prepared for the exclusive use of NU for specific application to this project as discussed. This plan has been prepared in accordance with generally accepted local environmental practices within the scope of the client's directives. No warranties are either expressed or implied by this document.

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



SCALE 1:24 000

KILOMETERS 1 .5 0 1 2
METERS 1000 0 1000 2000
MILES 1 .5 0 1
FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

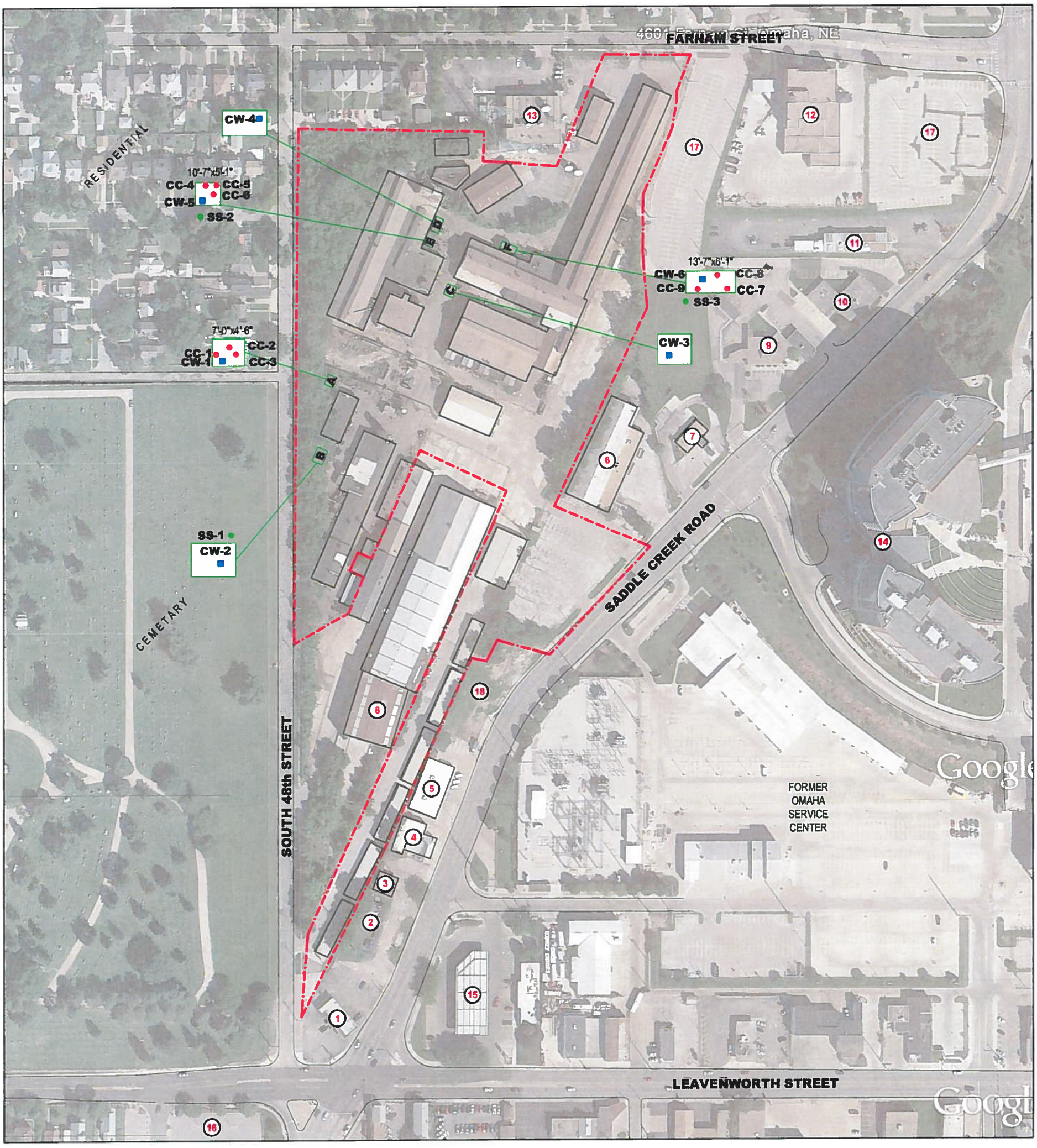
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

N

OMAHA NORTH, NEBRASKA
QUADRANGLE
1994
7.5 MINUTE SERIES (TOPOGRAPHIC)

Project Mngr: MRH	Project No.: 05137851	Terracon Consulting Engineers and Scientists	AREA MAP
Drawn By: PAI	Scale: AS SHOWN	2211 SOUTH 156th CIRCLE OMAHA, NE 68130-2505	OMAHA STEEL CASTINGS
Checked By: NRH	File No.: 05137851C01	PH. (402) 330-2202 FAX. (402) 330-7606	4601 FARNAM STREET
Approved By: MRH	Date: 1/8/14		OMAHA NEBRASKA

FIG. NO. 1



1. JIFFY LUBE - 7424 LEAVENWORTH STREET
   LUST # 06270-MAL-0800 / LUST # 040193-CT-1145
2. CHRISTMAS TREE SALES LOT
3. VACANT BUILDING - 708 SOUTH SADDLE CREEK ROAD
4. MILITARY SUPPLY STORE - 620 SOUTH SADDLE CREEK ROAD
5. ACE RENT TO OWN - 616 SOUTH SADDLE CREEK ROAD
6. STORAGE BUILDING / FORMER DRY CLEANING FACILITY
   600 SOUTH SADDLE CREEK ROAD
7. AMERICAN NATIONAL BANK - 520 SOUTH SADDLE CREEK ROAD
8. VOIGTMAN PROPERTY - 609 SOUTH 48th STREET
   LUST # 021490-99-0007
9. METRO HEALTH SERVICE - 414 SOUTH SADDLE CREEK ROAD
10. UNIVERSITY OF NEBRASKA - 412 SOUTH SADDLE CREEK ROAD
11. MINUTEMAN CARWASH - 404 SOUTH SADDLE CREEK ROAD
12. SCHOOL - 4469 FARNAM STREET
13. TV STATION - 4625 FARNAM STREET
    LUST # APS-2298
14. UNIVERSITY OF NEBRASKA MEDICAL CENTER
15. QUIK TRIP - 715 SOUTH SADDLE CREEK ROAD
16. BAKERS GROCERY STORE - 4807 LEAVENWORTH STREET
17. PARKING LOT
18. VACANT LOT

CW-6 ■ CONCRETE SURFACE WIPE SAMPLE

SS-3 ● SURFACE SOIL SAMPLE

CC-1 ● CONCRETE CORE SAMPLE

A TRANSFORMER CONCRETE PAD

APPROXIMATE SUBJECT SITE BOUNDARY

N

0 50 100 200

SCALE IN FEET

DRAWING BASED ON AN AERIAL PHOTOGRAPH, GOOGLE EARTH PRO, 2013

REV.	DATE	BY	DESCRIPTION

Terracon
Consulting Engineers and Scientists
15080 A CIRCLE OMAHA, NE 68144
PH. (402) 330-2202 FAX. (402) 330-7606

PCB SAMPLING LOCATION DIAGRAM

OMAHA STEEL CASTINGS

4601 FARNAM STREET

OMAHA NEBRASKA

DESIGNED BY:	MRH
DRAWN BY:	PAI
APPVD. BY:	MRH
SCALE:	AS SHOWN
DATE:	4/15/15
JOB NO.	05147015
ACAD NO.	05147015C02
FIGURE NO.:	2

P:\2014\05147015\PROJECT DOCUMENTS (Reports-Letters-Drafts To Clients)\Diagrams-Drawings-Figures\05147015C02.dwg Layout: SITE (3) 4/15/2015 1:35:23 PM

Table 1
Omaha Steel Castings
Terracon Project No. 05147015

			Analytical Suite			
			Polychlorinated biphenyls, Total PCB-1260	Polychlorinated biphenyls, Total PCB-1260		
			ug/100 cm^2	mg/kg (ppm)		
Transformer Designation	Sampling Location	Sample Type				
A	CW-1	Wipe	4.98	N/A		
	CCS-1, CCS-2, CCS-3	Core	N/A	1.20	1.18	1.20
B	CW-2	Wipe	<1.00	N/A		
	SS-1	Soil	N/A	<0.0495		
C	CW-3	Wipe	<1.00	N/A		
D	CW-4	Wipe	<1.00	N/A		
E	CW-5	Wipe	10.2	N/A		
	CCS-4, CCS-5, CCS-6	Core	N/A	0.254	0.186	0.207
	SS-2	Soil	N/A	0.159		
F	CW-6	Wipe	2.64	N/A		
	CCS-7, CCS-8, CCS-9	Core	N/A	1.48	0.603	0.318
	SS-3	Soil	N/A	0.231		

< = less than
ppm = parts per million
mg/kg = miligram per kilogram
ug/100cm^2 = micrograms per 100 square centimeters
N/A = not applicable

Notes:
1) The samples were submitted for laboratory analysis of PCBs by EPA Method 8082; sample results for PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, and PCB-1268 were reported as non-detect and are not listed on the table above.
2) Surface soil samples (SS-1 through SS-3) were collected on October 10, 2014. Samples were collected near concrete pads at locations where soil staining indicated the potential for PCBs to have released from the concrete pad onto the ground surface.
3) Concrete wipe samples (CW-1 through CW-6) were collected on October 10, 2014. A 100 cm^2 template was used to collect the sample from the sample area.
4) Concrete core samples (CCS-1 through CCS-9) were collected on March 20, 2015. Samples were collected from three random locations on each transformer pad.
5) For locations where a duplicate sample was collected, the higher concentration is recorded.

CERTIFICATION

In accordance with 40 CFR § 761.61(a)(3)(E), the undersigned certify that sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to characterize the PCB contamination at the cleanup site, are on file at the UNMC Environmental Office located at 4230 Leavenworth Street, Omaha, Nebraska, and are available for EPA Inspection.

Deborah L Thomas

Megan R. Hughes

Keith Swarts
University of Nebraska
Medical Center

Megan R. Hughes
Terracon Consultants, Inc.

by Deborah L. Thomas
Interim Vice Chancellor
for Business & Finance
University of Nebraska Medical Center
on behalf of Keith Swarts